

Title (en)
ULTRASONIC AND RADIOFREQUENCY ENERGY PRODUCTION AND CONTROL FROM A SINGLE POWER CONVERTER

Title (de)
ULTRASCHALL- UND RADIOFREQUENZENERGIEPRODUKTION UND STEUERUNG AUS EINEM EINZIGEN LEISTUNGSWANDLER

Title (fr)
PRODUCTION D'ÉNERGIE À RADIOFRÉQUENCE ET ULTRASONIQUE ET COMMANDE À PARTIR D'UN CONVERTISSEUR DE PUISSANCE UNIQUE

Publication
EP 3281711 A1 20180214 (EN)

Application
EP 17185396 A 20170808

Priority
US 201615231890 A 20160809

Abstract (en)
A generator is configured to output two or more waveforms at different frequencies. In particular, the generator is configured to provide an ultrasonic waveform, which may be suitable for driving a transducer of an ultrasonic surgical instrument, and electrosurgical radiofrequency energy, which may be suitable for electrosurgical instruments.

IPC 8 full level
B06B 1/02 (2006.01); **A61B 17/00** (2006.01); **A61B 18/00** (2006.01)

CPC (source: CN EP US)
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Citation (search report)
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• [XY] US 2010168742 A1 20100701 - SHIBATA NORIKIYO [JP]
• [XY] WO 2016091401 A1 20160616 - WINTER & IBE OLYMPUS [DE], et al
• [Y] EP 2674118 A2 20131218 - COVIDIEN LP [US]

Designated contracting state (EPC)
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Designated extension state (EPC)
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EP 3281711 A1 20180214; CN 107693108 A 20180216; CN 107693108 B 20210604; CN 113229892 A 20210810; US 11006997 B2 20210518; US 2018042659 A1 20180215; US 2021267659 A1 20210902

DOCDB simple family (application)
EP 17185396 A 20170808; CN 201710644219 A 20170801; CN 202110568610 A 20170801; US 201615231890 A 20160809; US 202117322030 A 20210517